KRATOCHVIL, P.; MUNK, P.; SEDLACEK, B.

Interaction of albumins. XXVII. Study of the effect of temperature and pH on the thermal denaturation of human serum albumin by means of isoelectric precipitation. Coll Cz chem 26 no.6:1499-1504 Je '61.

1. Institut fur makromolekulare Chemie, Tschechoslowakische Akedemie der Wissenschaften, Prag.

(Serum albumin) (Precipitation(Chemistry))

MUNK, P.; KRATOCHVIL, P.

Streaming birefrigence. I. The principal vibration and the magnitude of birefrigence. Coll Cz chem 26 no.6:1591-1616 Je '61.

1. Institute of Macromolecular Chemistry, Czechoslovak Academy of Science, Prague.

(Refraction, Double)

KRATOCHVIL, P

SURNAME, Given Names

(1)

Country: Czechoslovakia

Academic Degrees: [not given]

Affiliation: Institute of Macromolecular Chemistry, Czechoslovak Academy of Sciences, Prague

Source: Prague, Collection of Czechoslovak Chemical Communications, Vol 26, No 11, November 1961, pp 2806-2812

Data: "On Protein Interactions. XXIX. Kinetics of Aggregation of Denatured Proteins."

Authors:

KRATOCHVIL, P
MUNK, P
SEDLACEK, B

MUNK, P.; KRATOCHVIL, P.; SEDLACEK, B.

Behavior of macromolecules in solution. Part 2; Relation between viscosity, molecular weight, and radius of gyration. Coll Cz Chem 26 no.12:2992-3002 D '61.

1. Institute of Macromolecular Chemistry, Csechoslovak Academy of Science, Prague.

Prague, Collection of Czechoslovak Chemical Communications, Vol 27, No 4, April 1962.
Copyright by the Publishing House of the Czechoslovak Academy of Sciences, 1962.

1. "Polarography of Ecbalenoid Arenatic and Related Substances. Part VIII. Adsorption Processes During the Electroreduction of the Propylium Ion," F. ZUMAN of the Polarographic Institute of the Czechoslovak Academy of Sciences, Prague, and J. [illegible] of the Institute of Petrochemical Analytical Methods, at the Polish Academy of Sciences, Warsaw (original-language institutional data not given); pp 759-774 (English article).

2. "Substitution of Ligands in Macrocomplexes. Part IV. Formulation of Ferric Methylcrotile," J. [illegible] of the Institute of Inorganic Chemistry at Charles University, Prague; pp 775-781.

3. "Substitution of Ligands in Macrocomplexes. Part V. Hydrated Ferric Oxychloride," V. [illegible] of the Institute of Inorganic Chemistry at Charles University, Prague; pp 782-787.

4. "On Protein Interactions. Part XXXII. A Study, by the Light Scattering Technique, Precipitation Method, of the Effect of Conditions [illegible] on the Association of Beef-Denaturated Meat Serum Albumin," [illegible] and B. [illegible], Institute of Macromolecular Chemistry at the Czechoslovak Academy of Sciences, Prague; pp [illegible] (English article).

5. "On Protein Interactions. Part XXXIII. Precipitation, by Urea Solutions, of Aggregates of Beef-Denaturated Meat Serum Albumin," P. [illegible], P. [illegible] and B. [illegible], Institute of Macromolecular Chemistry at the Czechoslovak Academy of Sciences, Prague; pp 508-520 (English article).

6. "A Study, With the Aid of the Extraction Method, of the Complexes That Beryllium Uranium Forms With Alpha-Hydroxy Acids," J. [illegible] and V. [illegible] of the Nuclear Chemistry Institute, Faculty of Chemical Technology, Czech Institute of Technology, Prague; pp 809-815.

7. "Chromatographic Fractionation of Polychloroprene," J. [illegible] and M. [illegible], Institute of Physical Chemistry at the Czechoslovak Academy of Sciences, Prague; pp 816-822.

8. "Separation Methods for Natural Products. Part I. New Countercurrent Distribution Procedure," V. [illegible], J. [illegible] and Z. [illegible], Research Institute for Natural Drugs, Prague; pp 823-831 (English article).

1/5

MUNK, P.; KRATOCHVIL, P.

Streaming birefrigence. Part 2: Nomograph for calculation of the magnitude of birefrigence. Coll Cz Chem 27 no.9:2202-2203 S '62.

1. Institute of Macromolecular Chemistry, Czechoslovak Academy of Sciences, Prague.

CSSR

BARTL, P.; MUNK, P.; KRATOCHVIL, P.; STOKROVA, S.

no academic titles indicated

Institute of Organic Chemistry and Biochemistry and Institute of Macromolecular Chemistry, Czechoslovak Academy of Science, Prague

Prague, Colledtion of Czechoslovak Chemical Communications, No 1, 1963, pp 125-130

"Protein Interactions, XXXV. Type of Aggregates of Human Serum-Albumin Formed After Thermal Denaturation in the pH-Region Near the Isoelectric Point"

(4)

KRATOCHVÍL, P; MUNK, P; ŠTOKROVÁ, S; ŠPONAR, J; SEDLÁČEK, B.

Czechoslovakia

Institute of Macromolecular Chemistry and Institute of Organic Chemistry and Biochemistry, Czechoslovak Academy of Science -- Prague - (for all)

Prague, Collection of Czechoslovak Chemical Communications, No 4, 1963, pp 972-983

"Protein Interactions. XXXVIII. Retardation of Aggregation of Heat-Denatured Human Serum Albumin by Previous Heating."

5

MUNK, P.; KRATOCHVIL, P.

Streaming birefringence. Pt.4. Coll Cz Chem 28 no.10:
2539-2549 O '63.

1. Institute of Macromolecular Chemistry, Czechoslovak Academy
of Sciences. Prague.

KRATOCHVIL, P.

On the structure and properties of vinyl polymers and their models. Pt.2. Chem Cz Chem 29 no.11:2767-2782 N '64.

1. Institute of Macromolecular Chemistry of the Czechoslovak Academy of Sciences, Prague.

KRATOCHVIL, Pavel

CZECHOSLOVAKIA/Physical Chemistry - Thermodynamics, Thermochemistry, Equilibria, Physical-Chemical Analysis, Phase Transitions. B-8

Abs Jour : Referat Zhur - Khimiya, No 1, 1958, 418

Author : Stanislav Havel, Antonin Pospisil, Pavel Kratochvil, Vladimir Kudlacek.

Inst : -

Title : Ternary Systems Water - Benzene - Allyl Alcohol and Water - Toluene - Allyl Alcohol.

Orig Pub : Chem. prumyst, 1957, 7, No 5, 248-253

Abstract : The equilibrium liquid - liquid in the ternary systems water - benzene - allyl alcohol and water - toluene - allyl alcohol was studied at 25°. The refraction indices and densities of the ternary systems were measured at 30°. The composition of liquid equilibrium phases was determined. Triangular graphs of solubility with binodals and nodes shown on them were plotted. A correlation of

Card 1/2

CZECHOSLOVAKIA/Physical Chemistry - Thermodynamics, Thermochemistry, Equilibria, Physical-Chemical Analysis, Phase Transitions. B-8

Abs Jour : Ref Zhur - Khimiya, No 1, 1958, 418

experimental data according to Ottmer-Tobias and Bachmann-Hand was carried out.

Card 2/2

CZECHOSLOVAKIA/Optics - Instrument for Optical Analysis. K

Abs Jour : Ref Zhur Fizika, No 11, 1959, 26337

Author : Kratochvil, Pavel; Sedlacek, Blahoslav

Inst : Czechoslovak Academy of Sciences, Prague, Czechoslovakia

Title : Differential Refractometer

Orig Pub : Chem. listy. 1958, 52, No 12, 2414-2417

Abstract : The distinguishing feature of the proposed design consists of employing the auto-collimation scheme with double passage of the rays through the cuvette, the upper portion of which has a barrier, forming neighboring prisms with a solution and with solvent, and the lower (plane-parallel) is filled with the solvent. This increases the sensitivity, makes the instrument more compact, and by simultaneous observation of the rays passing through the upper and lower parts of the cuvette, there

Card 1/2

CZECHOSLOVAKIA/Optics - Instrument for Optical Analysis. K

Abs Jour : Ref Zhur Fizika, No 11, 1959, 26337

is eliminated the influence of the mechanical shifts during changes in the measured solution. The shift of the image of the slit is measured with a micrometer screw, which moves the eyepiece perpendicular to the optical axis of the instrument. The difference of the indices of refraction (up to 0.01) is measured with accuracy of 0.1%. The reproducibility is 1×10^{-6}.
-- B.V. Ioffe

Card 2/2

Kratochvíl, Pavel

Simultaneous determination of *p*-toluic and terephthalic acids. Vladimír Kudláček, Jiří Bořek, and Pavel Kratochvíl (Vysoká škola chem.-technol., Pardubice, Czech.). *Sborník věd. prací, Vysoká škola chem.-technol. Pardubice* 1959, 289–98.—A mixt. of the two acids was dissolved in 0.1*N* NaOH, the excess NaOH was neutralized with 0.1*N* H_2SO_4 (phenolphthalein), then excess H_2SO_4 (0.3 ml.) was added, the soln. was warmed, cooled, and titrated with NaOH. The method is reliable only if little or no impurities are present in the sample. Alexei B. Bořkovec

5

Jg 9(2)

PRASEK, L., Mg. Mat.; KRATOCHVIL, P., promovany matematik

Calculating natural frequencies of turbine blade flexural vibrations on digital computers. Strojirenstvi 13 no.7:490-496 Jl '63.

1. Vyzkumny a zkusebni ustav, Leninovy zavody, Plzen.

KOPECEK, Jan, inz.; BARACEK, Jaroslav, inz.; KRATOCHVIL, Petr, promovany matematik.

Use of an automatic computer in transformer calcultaions.
El tech obzor 52 no.11: 592-597 N'63.

1. Zavody V.I.Lenina Plzen, n.p.

KRATOCHVIL, P.

CZ/37-58-5-2/19

AUTHORS: Bolek, M., Kratochvíl, P and Valouch, M.

TITLE: Filament and Band Substructure in Single Crystals of Zinc Prepared by the Method of Czochralski (Vláknová a pásková substruktura monokrystalů zinku připravených metodou Czochralského)

PERIODICAL: Československý časopis pro fysiku, 1958, Nr 5, pp 521-525 + 1 plate (Czech)

ABSTRACT: The substructure in single crystals of metals has been mainly studied in connection with the elucidation of the mechanism of growth. Very little is known about the influence of the substructure on the properties of the crystals. A crystal with filament-type substructure, commonly known as hexagonal-, prismatic-, cellular-, etc. (Refs 1,2,3,4), consists of usually hexagonal filaments running parallel to each other in the direction of growth from the melt. Such substructures have mainly been studied in metals grown by a modified Bridgman method (Ref 5). At low rates of growth, the filaments merge to form a band substructure. Bleha (Ref 3) has observed filament substructure on single crystals of zinc and of cadmium grown by the method of Czochralski. In the present work some studies on substructures in single crystals of zinc are reported. These have been prepared in order to determine the influence of the conditions of growth on the plastic properties of the crystals. Two kinds of material were used: a) 99.71% Zn with 0.16% Cd and 0.06% Cu; b) 99.94% Zn with 0.040% Cd, 0.006% Cu and 0.004% Fe and Pb. The crystals were grown by the Czochralski method in an atmosphere of CO_2 (Ref 1). The diameters of the crystals were about 1-2 mm. Samples about 100 mm long were grown at three different rates: 5, 10 and 20 mm/min. The crystals were cut in a direction normal to their axis, chemically polished (Ref 11) and then etched. The crystals containing more impurities were etched electrolytically in a 2% solution of KOH with a current density of 0.75 amp/cm². The pure crystals were etched in a mixture of one part of 50% HNO_3 with one part of ethyl alcohol. An etch pattern showing filament substructure is shown in Fig.1; band substructure is shown in Fig.2. Some of the observations were made on the surfaces of the crystals without etching. The diameters of the filaments of the substructure were measured and are plotted in Fig.4 as functions of the temperature gradient at the interface between the melt and the crystal for several rates of growth. The same diameters decrease with increasing rate of growth and with increasing temperature gradient. This result is in agreement with the results of Rutter and Chalmers (Ref 2), on crystals of tin grown by the Bridgman method. Some probable effect of the orientation of the crystals was detected but no definite measurements were made (see also Ref 7). The crystals of lower purity usually showed mainly filament substructure. At the growth-rate of 5 mm/min and a small temperature gradient (G = 5°C/cm), a transition between cellular and band substructure was observed (Fig.5). The band substructure was found in crystals of high purity, which even at the fastest growth-rate and with temperature gradients up to 30°C/cm showed only this type of substructure. The width of the bands again decreased with increasing temperature gradient and growth-rate. The influence of the orientation of the crystals was here more pronounced. The transition between the two types of substructure was also dependent on the orientation of the crystal. A short explanation of the formation of the substructures is given. There are 8 figures and 11 references, 9 of which are English, 1 German, 1 Soviet.

Card 1/4

Card 2/4

Card 3/4

(3)

ASSOCIATION: Fysikální ústav a Katedra fyziky pevných látek mat.fyz. fakulty KU, Praha (Department of Physics and Chair of Solid-State Physics of the Faculty of Mathematics and Physics, Charles University, Prague)

The cellular substructure of zinc monocrystals prepared by the Czochralski method. Michal Bocek, Petr Kratochvíl, and Miloslav Valouch (Karlova Univ., Prague). *Czechoslov. J. Phys.* 8, 657–62(1958)(in English).—The dependence of the cell size and appearance of cellular substructure on the growth rate and the temp. gradient was studied. The results agree with those obtained by the Bridgman method (Chalmers, *C.A.* 47, 5340*a*; 50, 11750*b*). The orientation of monocrystals dets. the degree of elongation of cells. A hypothesis on the mechanism of production of elongated cells is proposed. The impurity diffusion during crystal growth is discussed. A. Kreinhe'ker.

CZECH/37-59-2-15/20

AUTHORS: Michal Boček, Petr Kratochvíl

TITLE: Letter to the Editor: Dislocations in Zinc Single Crystals with Elongated Cells

PERIODICAL: Československý Časopis Pro Fysiku, 1959, Nr 2, pp 214-215 + 1 plate

ABSTRACT: Recently a number of mechanisms have been discussed (Refs 1-6) which can lead to the formation of dislocations during crystal growth. A new mechanism was proposed by Tiller (Ref 7), using micro-segregation of impurities. The boundary between a fibrous and a band sub-structure is a region rich in impurities ($k < 1$). Due to such an inhomogeneous distribution of impurities, a lattice distortion in the vicinity of the segregation occurs. This distortion can be relieved by the formation of dislocations. Eq (1) (Ref 7) gives the density of dislocation lines perpendicular to the boundary between the crystal and the melt. With a view to Tiller's model, we have measured the density and arrangement of dislocations in zinc crystals. The crystals, with a cross-section of 1 mm^2, were grown by the Czochralsky method. They contained 2.2×10^{-2} at.% of cadmium.

Card 1/2

Letter to the Editor: Dislocations in Zinc Single Crystals with Elongated Cells

They were annealed at 200 °C for 24 hours, slowly cooled to room temperature and then etched by various methods (Refs 9, 10), in the plane parallel with the boundary between solid and liquid. The method of polishing described in Ref 9 and etching in a solution of 50% HNO_3 in ethyl alcohol for 15 minutes, was particularly successful. Fig 1 (p 222e) shows the observed array of dislocations. This was in good agreement with the model of Ref 7. The density of etch-pits was $6 \times 10^5/cm^2$. From Eq (2), we would have estimated $\rho = 10^6/cm^2$. The difference is acoounted for by the homogenisation during growth and annealing (Refs 11, 12 and 13). We consider that the mechanism described in Ref 4 leads to the formation of the majority of the dislocations in the case described. There are 1 figure and 13 references, of which 10 are English, 2 Czech and 1 German.

ASSOCIATION: Katedra fysiky pevných látek matematicko-fysikální fakulty K.U., Praha (Chair of Solid State Physics, Charles University, Prague)

Card 2/2

SUBMITTED: October 4, 1958

KRATOCHVIL, P?

"Zone melting and crystal growth."

POKROKY MATEMATIKY, FYSIKY A ASTRONOMIE, Praha, Czechoslovakia, Vol. 4, no. 2, 1959

Monthly List of EAST EUROPEAN ACCESSIONS INDEX (EEAI), LC, Vol. 8, No. 7, July, 1959

Unclassified

KRATOCHVIL, P.

Zonal melting and acquisition of crystals (Conclusion) p. 430

POKROKY MATEMATIKY, FYSIKY A ASTRONOMIE. (Jednota ceskoslovenskych matematiku a fysiku) Praha, Czechoslovakia, Vol. 4, no. 4, 1959.

Monthly List of East European Accessions (EEAI), LC, Vol. 8, no. 10, Oct. 1959 Uncl.

KRATOCHVIL, Petr

Dislocations originating in crystal growing. Pokroky fys pev latek 6: 199-220 '61. (EEAI 10:9)

1. Katedra fyziky pevnych latek Karlovy university.

(Dislocations in crystals)

S/137/62/000/005/114/150
A006/A101

AUTHORS: Kratochvil, P., Molčik, M.

TITLE: Investigating the structure of zinc single-crystals with the aid of an electron microscope

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 5, 1962, 91 - 92, abstract 5I564 ("Chekhosl. fiz. zh.", 1961, v. B11, no. 7, 540 - 541, English summary)

TEXT: A Tesla BS242 electron microscope was used to study the nucleation and growth of dislocations in etching pits on zinc single-crystals of 99.997% purity. The surface of the single crystal was polished by the Gilman method and etched in a 6.5% nitric acid solution in distilled water during 30 sec. Thus the zones of dislocation emergence became visible. Collodion-carbon replica were taken off an etched area of the single crystal (a layer of 3% collodion solution in amyl acetate was applied on to the specimen and then a 500 Å thick carbon film was sprayed-on, which was shaded with AuPd). The described method was found to assure the possibility of studying dislocations at up to 10^8 cm^{-2} density. There are 9 references.
[Abstracter's note: Complete translation] I. Nikitina

Card 1/1

G/030/62/002/009/004/004

AUTHORS: Boček, M., Kratochvíl, P., Lukáč, P. (Czechoslovakia)

TITLE: The effect of impurities on the critical resolved shear stress of zinc single crystals

PERIODICAL: Physica Status Solidi, v. 2, no. 9, 1962, 1221-1224

TEXT: Many measurements have been performed to explain in detail the effect of many parameters on the value of the critical resolved shear stress, the effect of impurities being of the greatest interest. The authors give a more detailed discussion of this subject than has previously appeared. It is assumed that during crystal growth a microsegregation takes place which is connected with the existence of a dislocation network. From this point of view the relation between the critical resolved shear stress of zinc single crystals and their purity is investigated. For the evaluation the measurements made by many authors on zinc single crystals were collected. Only those with solutes: that are soluble in the used range, i.e. they form solid solutions and that have known equilibrium distribution coefficients

Card 1/2

G/030/62/002/009/004/004

The effect of impurities on the critical...

are considered. The results: a) the square root dependence of τ, the critical resolved shear stress, on ρ, the density of dislocations, and b) the good value of the constant 2.6 in $\tau = 2.6\ (\sqrt{\rho})^{0.94}$, support the interpretation of the indirect effect of impurities on the critical resolved shear stress. Further calculations have shown that some other metals behave in the same manner. The authors thank Dr. E. Klier for many valuable comments on this work. One figure and one table are included.

ASSOCIATION: Department of Solid State Physics,
Charles University, Prague

SUBMITTED: July 9, 1962

Card 2/2

KRATOCHVIL, R.

Let us prepare well for the harvest of root crops. p.321

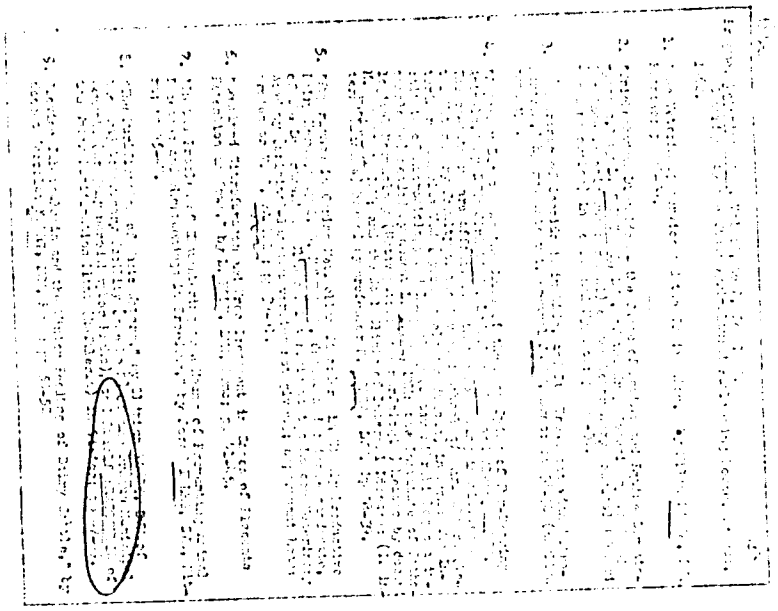
MECHANIZACE ZEMEDELSTVI. (Ministerstvo zemedelstvi) Praha

Vol. 5, no. 17, Sept. 1955

East European Accessions List Vol. 5 No. 1 Jan. 1956

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000826220

KRATOCHVIL, R.



KRATOCHVIL, Stanislav

Use of mental hygiene films in group psychotherapy. Cesk.psychiat. 56 no.5:299-302 O'60

1. Psychiatricka lecebna v Kromerizi.
(PSYCHOTHERAPY GROUP)
(MOTION PICTURES)

KRATOCHVIL, Stanislav

Autogenous exercise in psychotherapy of neuroses. Cesk. psychiat. 58 no.5:329-333 O '62.

1. Psychiatricka lecebna v Kromerizi.
(PSYCHOTHERAPY) (NEUROSES)

KRATOCHVIL, STANISLAV

Hydraulika. [Vyd. 1.] Bratislava, Praca, 1950. 559 p. (Technicka kniznica Prace, 5)
[Hydraulics. Bibl., diagrs., name index]

SO: MONTHLY LIST OF EAST EUROPEAN ACCESSIONS, LC., VOL. 3, NO. 1, Jan. 1954, Uncl.

KRATOCHVIL, Stanislav

Udolne priehrady. (1. vyd.) Bratislava, Vydavatelstvo Slovenskej akademie vied, 1953. 687 p. (Dams. 1st ed. illus., diagrs.)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 6 June 1956, Uncl.

KRATOCHVIL, STANISLAV.

Vyuziti vodni energie. (1.vyd.) Praha, Nakl. Ceskoslovenske akademie ved, 1956. 693 p.
(Utilization of water power. 1st ed. illus., bibl., diagrs., graphs, indexes)

SO: Monthly List of East European Accessions. (EEAL) LC, Vol. 6, No. 6, June 1957. Uncl.

Present conditions in the water economy of the German Democratic Republic. p. 109. VODNI HOSPODARSTVI. (Ustredni sprava vodniho hospodarstvi) Praha. No. 4, Apr. 1956.

SOURCE: East European Accessions List, Vol. 5, no. [illegible], September 195[illegible]

KRATOCHVIL, Stan., prof., ing., dr., docteur es sciences techniques.

Hydraulic properties of needle valve floodgates (Johnson's system) and of those with pistons. Vodoprivreda Jug 2 no.7/8:171-175 '59. (EEAI 10:1)

1. Directeur de l'Institut des recherches hydrotechniques a l'Universite technique de Brno (CSR).

(Sluice gates) (Hydraulics) (Water pipes)

KRATOCHVIL, S.

KRATOKHVIL, S. [Kratochvil, S.] (Brno); GALEK, V. [Halek, V.] (Brno)

Experimental solution of some harmonic problems by the method of diaphragm analogy [with summary in English]. Prykl.mekh. 5 no.1:55-64 '59. (MIRA 12:6)

1.N.-d. institut gidrotekhniki v Brno (Chekhoslovakiya)
(Harmonic analysis)

KRATOCHVIL, Stanislav, prof., inz., dr., Dr.Sc.

Sealing of earth and stone dams. Inz stavby 9 no.10:382-386 O '61.

1. Vysoke uceni technicke, Brno.

KRATOCHVIL, St., prof., inz., dr.

"Water resources management" by [prof., mgr., inz.] Aleksander Tuszko. Reviewed by St.Kratochvil. Vodni hosp 12 no.11: 440 N '62.

KRATOCHVIL, Stanislav,,prof., inz. dr., DrSc.

Catastrophic flood from the Vajont Dam. Vod hosp 13 no.11: 401-402 '63.

1. Vysoke uceni technicke, Brno.

CZECHOSLOVAKIA

KRATOCHVIL, S.; Psychiatric Clinic, Medical Faculty, J.Ev. Purkyne University (Psychiatricka Klinika Lekarske Fakulty UJEvP), Brno.

"The Problem of Existential Frustration."

Prague, Ceskoslovenska Psychiatrie, Vol 62, No 5, Oct 66, pp 322 - 326

Abstract [Author's English summary modified]: Treatment of neurotic and suicidal patients with existential frustration as defined by Frankl is discussed. It is important to distinguish causal existential frustration from symptomatic life nihilism caused by endogenous depression. Group therapy should be used to treat existential frustration, with patients helping each other. Two therapeutic approaches should be used in parallel : causal attacking of the meaning of life by logotherapy, and symptomatic attacking of the depression by activity. Intensive treatment should be given to solve patient's problem of finding the meaning of life; this should be followed by dereflection. 4 Western, 3 Czech references. (Manuscript received 12 Nov 65).
1/1

CZECHOSLOVAKIA

ZDIMALOVA, M.; KRATOCHVIL, S.; Psychiatric Clinic, Medical Faculty, J.Ev. PurKyne University (Psychiatricka Klinika Lek. Fak. UJEvP), Brno, Department of Clinical Psychology (Oddeleni Klinicke Psychologie).

"Anxiety and Sexual Life of Women."

Prague, Ceskoslovenska Psychiatrie, Vol 62, No 6, Dec 66, pp 393 - 400.

Abstract [Authors' English summary modified]: An investigation of married women living in towns was conducted by means of a questionnaire; the women visited clinical services provided by the University for other reasons. 100 satisfactorily filled in questionnaires were analyzed. Among 54 women who had a satisfactory sexual life only 18 suffered from anxieties; out of 46 who did not, 36 suffered from anxieties. A definite connection between the two factors seems to have been established. The most frequent cause of frustration in women seems to be lack of erotic patience in males, not enough respect for the clitoridal type of sexual reactivity, and wrong anticonception methods. 3 Tables, 8 Western, 9 Czech references.
1/1

KRATOCHVIL V. and HOLICKA L. *Stanoveni anilinu, O-, M-, P-toluidinu N-Dimethylanilinu a N-Diethyllanilinu ve vzduchu. The estimation of anilino, o-, m-, p-toluidino, n-dimethylaniline and n-diethylaniline in the air PRACOVNI LEKARSTVI (Praha) 1954, 6/3 (156-159) Graphs 5

Methods of colorimetric estimation of anilino, O-, m-, p-toluidine, dimethylaniline, diethylaniline concentrations in the air were controlled and further developed. The required apparatus and solutions as well as proceedings are described in detail. Vyskocil - Bruno

SC: Excerpta Medica, Vol.1 No. 2 Section XVII, February 1955.

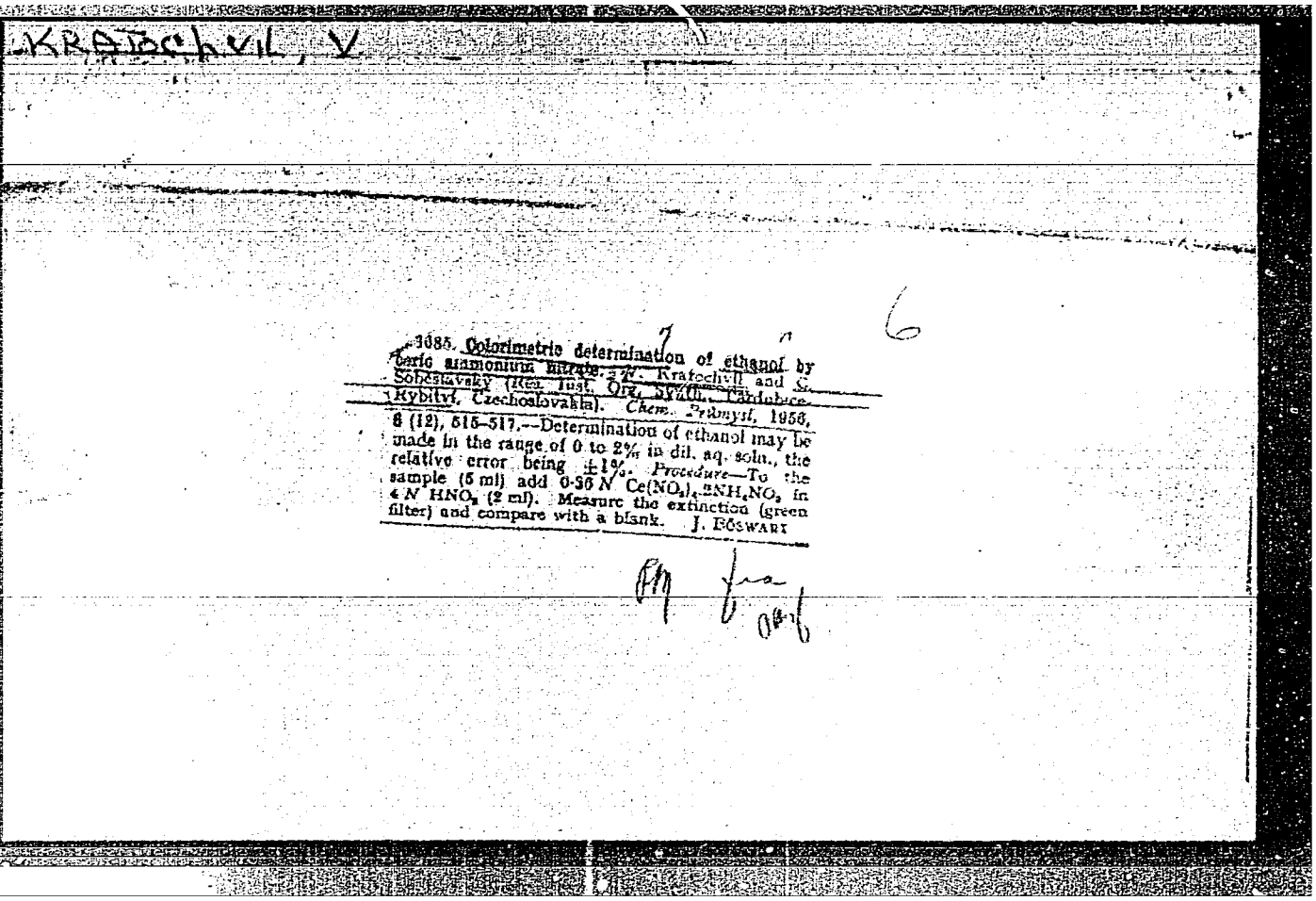
KRATOCHVIL, V. Ing.

KRATOCHVIL, V.Ing.; HOLICKA, I.

Acetone determination in the air. Pracovni lek. 7 no.1:32-34 Feb 55.

1. Vyskumny ustav organickych syntes Pardubice-Rybitvi, toxikol. sekce

(ACETONE, determination
in air, methods)
(AIR POLLUTION
acetone, method of determ.)
(INDUSTRIAL HYGIENE
acetone determ. in air, methods)



KRATOCHVIL, V.

3085. Colorimetric determination of ethanol by ceric ammonium nitrate. V. Kratochvil and S. Sobeslavsky (Res. Inst. Org. Synth., Pardubice-Rybitvi, Czechoslovakia). *Chem. Prumysl*, 1956, 6 (12), 515–517.—Determination of ethanol may be made in the range of 0 to 2% in dil. aq. soln., the relative error being ±1%. *Procedure*—To the sample (5 ml) add 0·36 *N* $Ce(NO_3)_4.2NH_4NO_3$ in 4 *N* HNO_3 (2 ml). Measure the extinction (green filter) and compare with a blank. J. Bóswart

KRATOCHVIL, V.

208. KRATOCHVIL V. and LANGER J. Toxikol. Sekce, Výzkumný Úst. Organ. Synthes Pardubice-Rybitví. Stanovení sulfochloridu fosforecného v ovzdusí *Determination of phosphorous sulphochloride in the atmosphere* Pracovní Lékarství (Praha) 1957, 9/1 (54—56) Graphs 2 Tables 1

Phosphorus sulphochloride ($PSCl_3$) from the atmosphere to be tested is absorbed in 2 N-NaOH heated on 50-60° C. (a 2-10 litre air sample). During absorption hydrolysis occurs, the products of hydrolysis being NaCl, Na_2S, Na_3PO_4 and H_2O. Sodium sulphide is removed by oxidation with permanganate and the phosphate is determined colorimetrically as molybdenum blue. By this procedure 0.1 mg.-2.0 mg. of $PSCl_3$ in 1 litre of air could be determined with sufficient accuracy. Souček — Prague

Kratochvíl, V.

5
99 (NB)

Photometric determination of benzidine, diphenyline, *o*-benzidine, *o*-tolidine, and *o*-dianisidine. V. Kratochvíl, M. Matrka, and J. Marhold (Výzkumný ústav org. synthes, Pardubice-Rybitví). *Collection Czech. Chem. Communs.* 25, 101–7(1960)(in German).—The detn. of small amts. of benzidine (I), *o*-benzidine, diphenyline (II), *o*-tolidine, and *o*-dianisidine is based on the tetrazotization of the amines and their coupling with *N*-ethyl-1-naphthylamine (III) in aq.-alc. soln. The tetrazotized amines react first with one, then much more slowly with the second mol. of the passive component. The diazotization is carried out in 0.1*N* HCl soln. at 0–5° with 1% $NaNO_2$ soln.; the excess $NaNO_2$ is destroyed after 5–10 min. with 5% aq. soln. of NH_2SO_3H; after 2–3 min., 0.2% soln. of III in 96% EtOH is added, the soln. is dild. with EtOH to a standard vol., and the extinction is measured at 620 or 545 mμ (for I or II, resp.).

M. Hudlický

KRATOCHVIL, Vaclav

Problems of photometric determination of silicon. Chem listy 59 no.6:672-684 Je '65.

1. Research Institute of Organic Synthesis, Pardubice-Rybitvi.

L 21107-66 EO
ACC NR: AP6008792 (A) SOURCE CODE: CZ/0009/65/000/011/0682/0685

AUTHOR: Spevak, Antonin; Kratochvil, Vaclav—Kratokhvil, Vatslav

ORG: Research Institute for Organic Synthesis, Pardubice-Rybitvi (Vyzkumny ustav organickch syntez)

TITLE: Rapid semiquantitative determination of phosgene concentration in the air

SOURCE: Chemicky prumysl, no. 11, 1965, 682-685

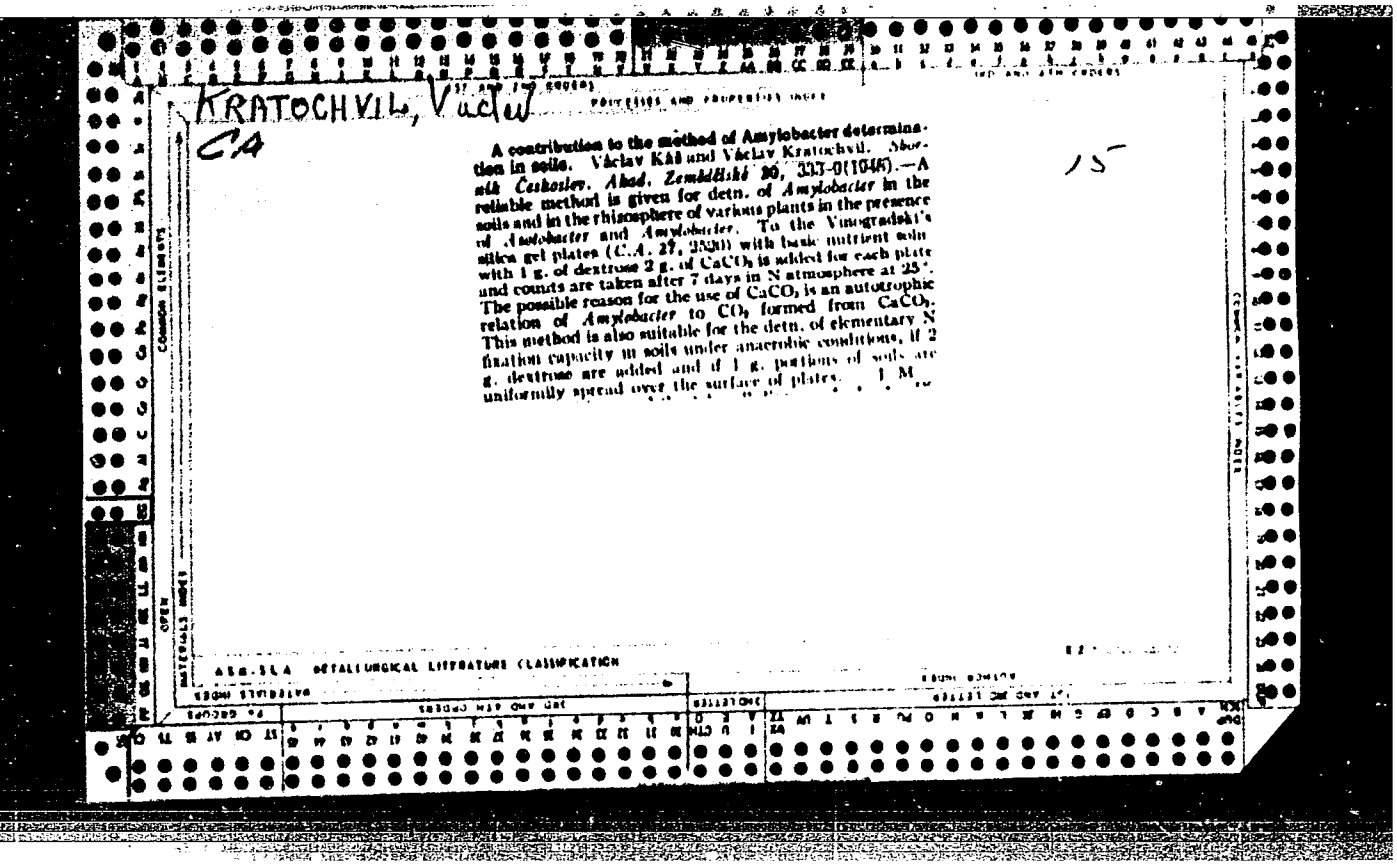
TOPIC TAGS: air pollution, phosgene

ABSTRACT: A new color reaction was employed for the detection of phosgene in the air using test tubes. The presence of phosgene is indicated by a distinct change in color. Due to their sensitivity (0.2 g of phosgene per liter), the new tubes can be used for checking air polution by phosgene in various chemical plants. A comparison with other reactions used for this purpose is given. Orig. art. has: 2 tables. [Author's abstract.] [KS]

SUB CODE: 07, 13/ SUBM DATE: 18Aug65/ ORIG REF: 004/ OTH REF: 019/ SOV REF: 002

UDC: 546.264.131-31
614.71/.72
545.72

Card 1/1



KRATOCHVIL, Vaclav

CA

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A contribution to the method of Amylobacter determination in soils. Václav Kál and Václav Kratochvil. *Sborník Českosloy. Akad. Zemědělské* 20, 333-0(1948).—A reliable method is given for detn. of *Amylobacter* in the soils and in the rhizosphere of various plants in the presence of *Azotobacter* and *Amylobacter*. To the Vinogradski's silica gel plates (C.A. 27, 3931) with basic nutrient soln with 1 g. of dextrose 2 g. of $CaCO_3$ is added for each plate and counts are taken after 7 days in N atmosphere at 25°. The possible reason for the use of $CaCO_3$ is an autotrophic relation of *Amylobacter* to CO_2 formed from $CaCO_3$. This method is also suitable for the detn. of elementary N fixation capacity in soils under anaerobic conditions, if 2 g. dextrose are added and if 1 g. portions of soils are uniformly spread over the surface of plates. I. M.

KRATOCHVIL, Vaclav

Operations of a carrion processing plant. Prum potravin 14 no.5:234 My '63.

1. Kafilerie, n.p., Tisice.

KRATOCHVIL, Vaclav; NEPRAS, Milos

Rapid semiquantitative determination of the aromatic hydrocarbon concentration in the atmosphere. Chem prum 14 no.1:43-45 Ja'64.

1. Vyzkumny ustav organickych syntez, Pardubice - Rybitvi.

KRATOCHVIL, V. - Vol. 14, no. 4, Apr. 1953. SLABOPROUDY OBZOR

J. Katscher's article "Objective Method for Serial Measurements of Applicability of Electronics to Microphones." p. 191.

SO: Monthly list of East European Accessions, (EEAL), LC, Vol. 4, No. 9, Sept. 1955 Uncl.

KRATOCHVIL, V.

SDELOVACI TECHNIKA (Communication Engineering, Czechoslovakia)
Vol 2, No. 8, August, 1954

Kratochvil, V.

SLABOPROUDY OBZOR

Weak Current (Communication) Review; Czechoslovakia

Vol 16, Nr 10, October 1955

V. Kratochvil "Materials for the manufacture of electronic tubes and lamps".
SNTL Prague 1955; 76 pages, 15 figures, 5 tables.
Reviewed by F. Rix

LFH

Kratochvil, V.

Blocking electric installations. p. 156. ELEKTROTECHNIK. (Ministerstvo strojirenstvi) Praha. Vol. 11, no. 5, May 1956.

Source: REAL LC Vol. 5, No. 10 Oct. 1956

KRATOCHVIL, V.

621.385

4585. THE TECHNOLOGY OF SPECIAL-QUALITY ELECTRONIC VALVES. V.Kratochvil. Slaboproudy Obzor, Vol. 17, No. 2, 74-80; No. 3, 154-8 (1956). In Czech.

The special quality (reliable) valves are characterized by the following features: (1) long life (above 10^4 hr) under the "normal" conditions; (2) "normal" life (above 10^3 hr) when subjected to mechanical shocks and vibrations; (3) "normal" life while preserving their electrical characteristics and (4) short but definite life at high accelerations. The technological processes involved in the manufacture of valve components and the assembly of oxide-cathode valves are reviewed in the light of the above requirements. Methods of testing the valves and their application in the design of equipment are discussed. The paper contains 47 references.

R.S.Sidorowicz

KHLADOVIL, V.

Technology of special-quality electron tubes. p. 74.

Vol. 17, no. 2, Feb. 1956
RUDY
Praha, Czechoslovakia

Source: East European Accession List, Library of Congress
Vol. 5, No. 8, August 1956

KAUCKÝ, V.

Technology of special-quality electron tubes. (Conclusion) p.154.

SLABOPROUDÝ OBZOR. Vol 17, No. 3, March 1956, Prague.

SO: Monthly List of East European Accessions (EEAL) LC, Vol 5, No. 6, June 1956 Incl.

KRATOCHVIL, V.

Blocking electric equipment. p.194.
(Elektrotechnik, Vol. 12, No. 6, June 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, No. 9, Sept. 1957. Uncl.

KRATOCHVIL, V.

Split-voltage transformers.

p. 348 (ELEKTROTECHNIK) Vol. 12, no. 11, Nov. 1957,
Praha, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 3,
March 1958

H

CZECHOSLOVAKIA/Electronics - Electron Tubes.

Abs Jour : Ref Zhur Fizika, No 9, 1959, 20690

Author : Kratochvil, Vladimir., Zuzanek, Jaroslavy
Inst : -
Title : Czechoslovak Line-Fed Receiving-Amplifying Tubes 1957 - 1958

Orig Pub : Slaboproudy obzor, 1957, 18, No 12, 860-865

Abstract : The authors give the principal parameters and properties of Czechoslovak receiving-amplifying tibes, fed from the line. It is noted that thanks to the high qualities of modern miniature eight and nine pin receiving-amplifying tubes of Czechoslovak manufacture, receivers can be constructed for world-wide reception in all sizes. The improvement in the technology of tube manufacture are indicated.
Bibliography, 22 titles.

Card 1/1

KRATOCHVIL, Vladimir, inz.

Long-life thermionic tubes. Slaboproudy obzor 21 no.10: 578-584 O '60. (EEAI 10:2)

1. TESLA Roznov, narodni podnik, zavod Vrchlabi
(Electron tubes)

KRATOCHVIL, Vladimir

Television station Stredni Cechy[Central Bohemia]. Cz spoje 6 no.12: 8-9 D '61.

1. Pracovnik televisni vysilaci stanice Stredni Cechy.

KRATOCHVIL, Vladimir, inz.

Cathodes of receiving electron tubes. Slaboproudy obzor 23 no.11:Suppl.:Priloha pro mlade inzenyry. 23 no.11:P69-P72 '62.

KRATOCHVIL, Vladimir, inz.; KUBAT, Arnost, inz.

Technical conditions for the TESLa special quality electron tubes. Sdel tech 11 no. 12: 452-455 D '63.

NAVRATIL, J.; ATANASOV, D.; BEDNARIK, B.; HRDLICA, M.; MUSIL, J.; OLEJNIK, O.; VASULIN, M.; ENENKL, V.; HLOUSEK, J.; KRATOCHVIL, Z.

Experiences with surgery of heart defects in deep hypothermia (Preliminary report). Cas. lek. cesk. 101 no.50:1475-1481 14 D '62.

1. II. chirurgicka klinika university JEvP v Brne, prednosta prof. dr. J. Navratil. Katedra termomechaniky VUT v Brne, prednosta dr. inz. V. Enenkl.

(HEART DEFECTS CONGENITAL) (HYPOTHERMIA INDUCED)
(HEART SURGERY)

KRATOCHVILA, A.

"Using mobile shuttering in the construction of dwelling houses." p. 166.

STAVBA. (Poverenictvo stavebnictva). Bratislava, Czechoslovakia,
Vol. 6, No. 6, June 1959.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 8,
August 1959.
Uncla.

KRATOCHVILA, A.

Development of new building materials used in wall construction in Slovakia. p. 225.

STAVBA. (Povereníctvo stavebníctva) Bratislava, Czechoslovakia. Vol. 6, no. 8, Aug. 1959.

Monthly list of East European Accessions (EEAI) LC, Vol. 8, no. 10, Oct. 1959. Uncl.

KRATOCHVILA, Anton, inz.

Some problems of building walls from porous concrete.
Poz stavby 13 no.3:94-99 '65.

1. Research Institute of Engineering Construction, Bratislava.

KRATOCHVILA, J.

FLORIAN, M.Dr.; KRATOCHVILA, J.[redacted].

Dorsolumbar kyphosis - outline of practical exercises. Acta chir. orthop. traum. cech. 22 no.1-2:13-17 Feb 55.

1. Z orthoped. odd. OUNZ, Trebic, predn: primar dr. M.Florian.
(KYPHOSIS
dorsolumbar, exercise ther.)
(EXERCISE THERAPY, in various diseases
kyphosis, dorsolumbar)

FLORIAN, M.; KRATOCHVILA, J.

Prevention of faulty posture in special physical training classes in schools. Acta chir. orthop. trauma. Cech. 29 no.1:25 F '62.

1. Ortopedicke oddeleni OUNZ v Trebici, prednosta MUDr. M. Florian.

(POSTURE in inf & child)
(PHYSICAL EDUCATION AND TRAINING)

CZECH/37-59-3-19/29

AUTHORS: Míšek, Karel and Kratochvílová, Eva

TITLE: "Spurious" ΔG Effect in Nickel (Letter to the Editor)

PERIODICAL: Československý časopis pro fysiku, 1959, Nr 3, pp 323-324

ABSTRACT: The modulus of elasticity of ferromagnetic materials normally increases with magnetization. Recently, Ochsenfeld (Ref 2) has studied this ΔG effect on Ni, Fe alloys and found a ΔG negative in weak fields. We have studied ΔG on Ni by measuring the torsional vibrations of a nickel wire in either a DC or an AC magnetic field. Figure 1 shows $f^2 \sim G$ as a function of the magnetic field (1^1 DC, 2^1 AC). The negative ΔG effect is larger in an AC field.
The paper further shows that the minimum in G closely corresponds to an observed maximum in the internal friction.
There are 1 figure and 4 references, of which 1 is Soviet, 1 English, 1 German and 1 Czech.

Card1/2

CZECH/37-59-3-19/29

"Spurious" ΔG Effect in Nickel (Letter to the Editor)

ASSOCIATION: Ústav technické fysiky ČSAV, Praha
(Institute of Technical Physics of the Czechoslovak Ac.Sc., Prague)

SUBMITTED: November 21, 1958

Card 2/2

67017

CZECH/37-59-4-4/16

18.8100

AUTHOR: Eva Kratochvílová

TITLE: Study of Magnetostriction of Plastically Deformed Nickel

PERIODICAL: Československý Časopis Pro Fysiku, 1959, Nr 4, pp 363-367

ABSTRACT: To the author's knowledge, the dependence of magnetostriction on plastic deformation in nickel was studied only by Dietsch (Ref 2). He has shown that plastic deformation reduces the absolute values of magnetostriction in magnetic fields up to 400 Oe. Higher fields have not been studied, therefore the influence of plastic deformation on magnetostriction in the saturated state is unknown. The measurements were carried out by resistance tensometers (Ref 3). The change in resistance of the tensometer is directly proportional to the change in length of the sample. The constant of proportionality was measured by a special calibrating apparatus described in Ref 8. The value of the magnetostriction was determined to an accuracy of 3.10⁻⁷. The samples of nickel (70 x 12 x 1.5 mm) were prepared from technically pure electrolytic nickel and annealed for one hour at 1050 °C in hydrogen. Twelve samples were studied, each

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67017

CZECH/37-59-4-4/16

Study of Magnetostriction of Plastically Deformed Nickel

differently deformed by tension between 0-14%. Before each measurement, the samples were demagnetised. During the measurements, the magnetic field was increased monotonously from 0 - 1600 Oe. For every value of the field, $\Delta l/l$ of the sample was measured. Fig 3 shows $\Delta l/l$ as the function of the magnetic field for several values of deformation. Fig 4 shows the dependence of the magnetostriction on plastic deformation for various intensities of the magnetic field. In common with Dietsch's results we found, for weakly deformed samples, a waviness of the curves in Fig 4 in weak magnetic fields. We further found that for higher magnetic fields, the curves were wavy even at higher deformations. No theoretical explanation of the undulating character of the curves exists, but it seems certain that it is a real effect. Other effects showing similar undulating properties are discussed by A. Smolinski in a private communication and W.A. Wood (Ref 12).

Card 2/3 There are 4 figures and 12 references, of which 3 are English, 4 Soviet, 1 German and 4 Czech.

67017
CZECH/37-59-4-4/16

Study of Magnetostriction of Plastically Deformed Nickel

ASSOCIATION: Katedra fysiky pevných látek, Karlova universita, Praha (Chair of Solid State Physics, Charles University, Prague)

Card 3/3

SUBMITTED: January 9, 1959

L 18478-66 EWT(1) IJP(c)

ACC NR: AP6003657 SOURCE CODE: CZ/0055/65/015/010/0718/0729

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B

AUTHOR: Kratochvilova, E.

ORG: Institute of Solid State Physics, Czechoslovak Academy of Sciences, Prague

TITLE: Magnetic after-effect in Mn ferrite 21,44,55

SOURCE: Chekhoslovatskiy fizicheskiy zhurnal, v. 15, no. 10, 1965, 718-729

TOPIC TAGS: manganese compound, magnetization, magnetic field

ABSTRACT: An experimental study was performed to examine the influence of the magnetic diffusion after-effect on irreversible magnetization processes in ferrites, which produced new information on the statistical system of Bloch walls. The decrease of magnetic induction as a function of the period after demagnetization of the sample in a constant magnetic field (or disaccomodation of induction) was studied for various values of the d-c magnetic field. The ballistic method was used. The experimental results were interpreted from the point of view of irreversible wall displacements. It was shown that under certain assumptions it is possible to derive the statistical distribution of Bloch wall energies from the experimental curves for substances in which magnetic diffusion after-effect exists. In the method used a new variable, time (t), was introduced which permitted the magnetization processes to be studied in a time expansion. Manganese ferrite of the composition $Mn_{1.36}Fe_{1.64}O_4$

2

Card 1/2

L 18478-66
ACC NR: AP6003657

was used in the experiment. The author thanks Dr. S. Krupicka for suggesting the problem and many helpful discussions. Orig. art. has: 8 figures and 7 formulas.

SUB CODE: 20/ SUBM DATE: 06Apr65/ ORIG REF: 001/ OTH REF: 009/

Card 2/2

KRATOCHVILOVA, E.; KRUPICKA, S.; STERNBERK, J.; ZITKA, B.

Time increase of induction in the manganese-copper ferrite with rectangular hysteresis loop. Cs cas fys 14 no. 4: 293-302 '64.

1. Institute of Solid State Physics, Czechoslovak Academy of Sciences, Prague.

65974

24.2200 4/037/60/000/02/003/018
E024/E320

AUTHORS: Brož, Jaromír and Kratochvílová, Eva

TITLE: Measurement of Magnetization with the Aid of a Physical Pendulum

PERIODICAL: Československý časopis pro fysiku, 1960, Nr 2, pp 102 - 106

ABSTRACT: The method (a modification of that described by Rathenau and Snoek, Ref 1) is suitable for measurements up to 600 °C. The equations of motion of a pendulum with a ferromagnetic sample moving in an inhomogeneous magnetic field is given by Eq (1), where M is the mass of the sample-holder, etc., J the moment of inertia, F the product of the field gradient and the sample's magnetic moment, s the distance of the centre of gravity from the axis, l the distance of the sample from the axis and m the mass of the sample. If $x = l\varphi$, $m \ll M$ and $dH/dx = cx$, it follows that:

$$I = \frac{Mgs}{vcl^2}\left[\left(\frac{t_o}{t}\right)^2 - 1\right] \qquad (4)$$

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Measurement of Magnetization with the Aid of a Physical Pendulum

where t_o is the pendulum's period in the absence of a magnetic field, t the period in the presence of a magnetic field, I the sample's magnetization intensity and v the volume of the sample. The main part of the equipment (Figure 1) is the Y-shaped pendulum made from thin glass tubes. The motion of the pendulum is restricted to a plane perpendicular to the direction of the magnetic field. The position of the pendulum's axis can be adjusted so that the sample intersects the axis of the pole-pieces midway between them. The sample can oscillate in a small electric furnace located between the pole pieces.

The magnetic field is produced by an electromagnet with hemispherical pole pieces (3.5 cm radius) whose separation is adjustable; H was measured by a ballistic method and was found to vary as Eq (5); here H_o is a constant, a and b depend on the separation of the pole pieces and the magnetizing current. Figure 2 also shows dH/dx.

Measurement of Magnetization with the Aid of a Physical Pendulum

Because the amplitude of the oscillation was less than 0.2 cm, Eq (3) applied with $c = -2a = -4450$ Oecm^{-2}. With 2.12 cm between the pole pieces, $M = 46.03$ g, $s = 15.95$ cm, $l = 61.3$ cm, one obtains (Eq 4):

$$k = \frac{Mgs}{vol^2} = 0.0431 \text{ abs. un. cm}^3.$$

By comparing measurements of the magnetization of various saturated ferrites at room temperature with measurements obtained by the ballistic method, the validity of Eq (4) was confirmed (see Figure 3 comparing I_s (pend) with I_s (bal).)

The temperature dependence has been measured of the saturated magnetization of various ferrites. Figure 4 shows this dependence for $Mn_{1.15}Fe_{1.85}O_4$. The points marked by circles were obtained by the ballistic method, while those marked by crosses by the pendulum method. At room temperature, the values coincide and both curves join smoothly together.

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E024/E320

Measurement of Magnetization with the Aid of a Physical Pendulum

The samples may be quite small (v approx 5×10^{-5} to 5×10^{-3} cm^3).
The accuracy of the method depends on the accuracy with which t is determined. In the authors' case, this was done electronically with an accuracy of 0.01 sec. One may expect to determine the magnetization intensity with an accuracy of 1%. There are 4 figures and 2 references, of which 1 is English and 1 Czech.

ASSOCIATION: Ústav technické fysiky ČSAV, Praha (Institute of Technical Physics, Prague)

SUBMITTED: August 17, 1959

Card 4/4

OSVALD, R.; KRATOCHVILOVA, H.

Basic relations of physicochemical parameters of the first turbid saturated juice. Listy cukrovar 79 no.9:218-223 S'63.

OSVALD, Rudolf;KRATOCHVILOVA, Hana

Flocculants in the sugar industry. Pt.2. Listy cukrovar 79 no.7:154-161 Jl'63.

OSVALD, Rudolf; KRATOCHVILOVA, Hana

Flocculants in the sugar industry. Pt. 3. Listy cukrovar 80 no. 7:175-182 Jl '64.

"PRAT, V.; BROD, J.; BENESOVA, D.; DEJDAR, R.; FENCL, V.; HORAK, O.; CERVINKA, F.; KRATOCHVILOVA, J.; PAVKOVA, L.

Research on chronic pyelonephritis during the first ten years of the Institute for Cardiovascular Research. Rev. czech. M. 8 no.2: 113-123 '62.

1. Institute for Cardiovascular Research, Prague; Director: Academician K. Weber, Department of Morbid Anatomy and Microbiology, Faculty of Paediatrics, Charles University, Prague; Head: Doc. Dr. D. Benesova, Institute of Clinical and Experimental Surgery, Prague; Director: Prof. Dr. B.Spacek.

(PYELONEPHRITIS statistics)

KRATOCHVILOVA, K.; TICHY, J.; ZELENKA, J.

The effect of radiation on the properties of piezoelectric resonators. Cs cas fys 12 no. 2:144-151. '62.

1. Katedra matematiky a fysiky, Vysoka skola strojni a textilni, Liberec (for Kratochvilova, Tichy).

2. Tesla Lanskroun, zavod 05, Hradec Kralove (for Zelenka)

7.2180
7.2181

Z/037/62/000/002/007/015
E024/E135

AUTHORS: Kratochvílová, K., Tichý, J. and Zelenka, J.

TITLE: Influence of radiation on the properties of piezoelectric resonators

PERIODICAL: Československý časopis pro fysiku, no.2, 1962, 144-151

TEXT: The effect of radiation on piezoelectric oscillators is one of the environmental influences which are becoming important as demands on the accuracy and stability of crystal oscillators increase. The authors briefly review the field of radiation damage in solids in general and in piezoelectric crystals in particular, before describing their own experiments on oscillators from natural quartz and from DKT. The source of radiation was either Co-60 or X-rays from a copper target at 35 kV. No change was detected in the longitudinal vibrations of quartz oscillators cut in the XYa_{-5}^{0} direction due to irradiation by several hundred r units of X-rays and up to 10^5 r units of γ rays. This result is in agreement with published

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results. On the other hand, the torsional vibrations of type BT quartz-crystal-oscillators with orientation YXℓ49°20' at about 13 Mc/s were influenced by irradiation. Irradiation by up to 105×10^3 r of X-rays gradually reduced the resonance frequency from over 13514 kc to under 13510 kc. The reduction in the resonance frequency tended to saturate. A similar oscillator with a resonance frequency of 10 Mc/sec was irradiated by up to 10^5 r of γ-rays. This irradiation reduced the resonance frequency only very slightly and barely influenced the temperature-dependence of the frequency. Similar results were obtained with oscillators of the type AT with orientation YXℓ-35°10' . The influence of X-rays on oscillators made from DKT was studied on samples cut in the XZa37°30' orientation at about 100 kc/sec. Irradiation with about 3×10^3 r reduced the resonance frequency by 4-5 cycles if the crystal was sealed in a glass envelope and by about 12 cycles when irradiated in the open. No change in the temperature-dependence of the frequency was detected. It appeared that irradiation

was more effective if carried out while the crystal was vibrating. The theoretical interpretation of the above results has not yet been clarified.
There are 3 figures.

ASSOCIATION: Tesla Lanškroun, závod 05, Hradec Králové (J.Zelenka)
(Tesla Lanškroun, Factory 05, Hradec Králové)
Katedra matematiky a fysiky VŠST, Liberec (K.Kratochvílová and J. Tichý)
(Department of Mathematics and Physics, VŠST, Liberec)

SUBMITTED: November 30, 1961

Card 3/3

ADAM, E.; KUEATOVA, E.; KRATOCHVILOVA, M.; BURIAN, V.; SKVARIL, F.; Statisticke zpracovani: MALY, V.

Preparations of placental gamma glovulins stabilized by epsilon-aminocaproic acid. Study on the rectivity and efficiency. Cas. lek. Cesk. 104 no.4:1093-1100 8 0 '65.

1. Ustav ser a ockovacich latek v Praze (reditel MUDr. J. Malek).

KRATOCHVILOVA, O

"Application of azure II-eosin in botanical microtechniques."

BIOLOGIA, Bratislava, Czechoslovakia, Vol. 13, no. [illegible], 1958

Monthly list of East Europe Accessions (EEAI), LC, Vol. 8, No. 6, Sept 59
Unclas

KRATOCHVILOVA, O.

Development of the boll of the species Linum Austriacum L. p. 5

BIOLOGICKE PRACE (Slovenska akademia vied. sekcia biologickych a lekarskych vied) Bratislava Czechoslovakia

Vol. 5, no. 7, 1959

Monthly list of East European Accessions (EEAI) LC. VOL. 9, no. 1 January 1960

Uncl.

KRATCCHVILOVA, O.

"Centripetal origin of cell walls in the embryonic sac of Linum austriacum L."

Biologia. Bratislava, Czechoslovakia. Vol. 14, no. 2, 1959

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 7, July 59, Unclas

KRATOCHVILOVA, Vera; KLECKOVA, Eva; DRABOVA, Marie

Problem of sulfonamide-resistance in Shigella. Cesk. epidem. mikrob. imun. 6 no.5:337-338 Sept 57.

1. Ustav epidemiologie a mikrobiologie, reditel prof. Dr. Karel Raska.
(SHIGELLA DYSENTERIAE, effect of drugs on,
sulfonamides, resist. (Cz))
(SULFONAMIDES, effects,
on Shigella dysenteriae, resist. (Cz))

KRATOCHVILOVA, V.

1092. VACCINATION DURING THE INCUBATION PERIOD - Raška K., Kratochvílová V. and Jelínek J. Inst. of Epidemiol. and Microbiol., Prague - BRIT. J. EXP. PATH. 1957, 38/2 (217-220) Graphs 1 Tables 3

The authors have seen rather severe pertussis in children vaccinated after contact with the disease. They studied the possible existence of a 'negative phase' after vaccination in mice. Mice were vaccinated i. p. and challenged with H. pertussis intranasally. Mice vaccinated 1 to 3 days after infection had a higher death rate than controls; the same was true of mice infected 1 to 4 days after vaccination.

Bradshaw - Leeds (L. 4, 7, 17)

KRATOCHVILOVA, V.; JELINEK, J.; RASKA, K.

Vaccination during the incubation period. II. A comparison of intranasal and intracerebral infection with H. pertussis. J. Hyg. Epidem., Praha 2 no.1:23-28 1958.

1. Institute of Epidemiology and Microbiology, Srobarova 48, Prague 12, Czechoslovakia.

(HEMOPHILUS PERTUSSIS, immunology
eff. of vacc. of mice before & after exper. intranasal or intracerebral H. pertussis infect.)

SOBEK, V.; KRATOCHVILOVA, V.

Effect of chlortetracycline on growth. Cas. lek. cesk. 97 no.43:1365-1367 24 Oct 58.

1. Katedra farmakologie a experimentalni pathologie, prednosta prof. MUDr H. Raskova Ustav epidemiologie a mikrobiologie prednosta Prof. MYDr. K. Raska.

(GROWTH, eff. of drugs on
chlortetracycline in young rats (Cz))
(CHLORTETRACYCLINE, eff.
on growth in young rats (Cz))

GARBINSKI, T.; KRATOCHWIL, L.

Effect of jaundice on tuberculin reactions in man. Gruzlica 21 no.2: 157-160 Feb 1953. (CIML 24:4)

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